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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,866	01/16/2004	Craig Hansen	43876-156	5955

7590 05/22/2006

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EXAMINER

COLEMAN, ERIC

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,866

Applicant(s)

HANSEN ET AL.

Examiner

Eric Coleman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3. Claim 10 is directed to a computer readable medium. While some computer readable mediums such as memory (e.g., optical disk or CD ROM) other mediums such as transmission mediums (such as carrier waves) do not provide for tangible embodiment such that the information contained therein would be executable by the computer. The disclosure does not limit the medium to tangible computer readable media such as memory or a storage medium. Consequently even though claim 10 details various instructions for performing operations the claims is to a computer medium that has instruction and these instructions are not tangibly embodied in a manner such that the instructions can be executed. Therefore claims 10 and the claims that depend from claim 10 (claims 11-17) are also non-statutory.

4. Claim 18 is directed to a computer data signal. A data signal does not provide for a tangible embodiment for the data instructions contained thereon such that the instructions would be executable. Consequently, even though the instructions are claimed as instructing a computer to perform operations, these instructions embodied in a transmission medium (such as a carrier wave) (instead of instructions stored on a storage medium) do not provide for a tangible embodiment such that the instructions

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would be executable. Therefore claim 18 and the claims that depend from claim 18 (claims 19-27) are non-statutory.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8,10-17,19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (patent No. 5,751,614).

7. Cohen taught the invention as claimed including a data processing ("DP") system comprising:

a) Decoding a single instruction writing data to destination register specifying both a mask and a register containing data, the mask comprising fields that each correspond to a field of the data (ME, MB) contained in the register (e.g., see col. 7, lines 34-59);

b) Detecting some of the fields of the mask as having a predetermined value and identifying corresponding fields of the data contained in the register as write-enabled data fields (e.g., see col. 5, lines 21-col. 6 line 34 and figs. 3,4); and

c) Writing the write-enabled data fields to a specified destination register location (e.g., see col. 5, lines 46-57).

8. Cohen did not expressly detail that the data that was stored in the destination register was stored in memory. Cohen taught RISC system. In RISC system it was well

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known in the art when there were more variables than could be held in the registers the excess data was held in memory. Consequently in at least one implementation of the Cohen teachings one of ordinary skill would have been motivated to store the data produced by the single instruction in memory at least when there were not enough registers to store the data.

9. As to the addition limitations of claims 10,19 Cohen taught the instructions performed comprised RISC instructions and the multiplex instruction is the instruction discussed above (e.g., see fig. 3)

10. As to claims 2,11,20 Cohen taught each of the fields of the mask having a width of one bit (e.g., see fig. 3) [each bit field with a "1" comprised one bit].

11. As to claims 3,12,21 Cohen taught each of fields of the data contained in the register has a register has a width of one bit (e.g., see fig. 3)[each bit of the mask corresponded to a one bit field of the register].

12. As to claims 4,13,22 Cohen taught the writing step further comprises reading an unaltered field of data from the specified memory location and writing the unaltered field of data along with the write-enabled fields to the specified memory location (e.g., see fig. 3) [the unaltered fields outside of the mask field that corresponded to the zeros of the mask].

13. As to claims 5,14,23 Cohen taught the mask is contained in a specified register (the mask in one form is contained in the instruction register containing the instruction in fig.3) specified by the instruction address and also the mask is in a temporary register (e.g., see col. 5, lines 47-57).

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14. As per claim 6,15,24 Cohen did not specify that the memory location was contained in a specified register. However since in the occurrence that the registers were full and excess data was stored in memory one of ordinary skill would have been motivated to store a pointer to the memory location in the registers (such as a stack) at least to provide quick access to the address to access the data stored in memory. Also since in the RISC system the system operates on data stored in registers to provide speed of processing so one of ordinary skill encountering the not enough register would have been motivated to store a pointer in the register to the memory location of the data stored in memory for quick access to the data.

15. As per claim 7,16,25 Cohen did not teach the specified memory location comprises a section of memory having a specific width and beginning at a specific memory address. However conventional memory comprises a specified memory width (although there are various widths of different memories) one of ordinary skill would have been motivated to store the width of the memory at least to allow the system properly set up the access to the data for properly performing the rotate and merge operations. This allows for compatibility with upgrading of the memory.

16. As per claim 8, Cohen taught the predetermined logic value is a "1" (e.g., see fig. 3)[the "1s" in the mask].

17. Claims 9,18,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen as applied to claims 1-8 above, and further in view of Kabir (patent No. 5,933,160).

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18. As per claim 9, Kabir taught decoding a second single instruction specifying a fourth register containing a plurality of floating point operands; multiplying the plurality of floating point operands in the third register by the plurality of operands in the fourth register to produce a plurality of products; and providing the partitioned field of a result as a concatenated result (e.g., see fig. 4, 5a, 5b and col. 8, lines 21-45).

19. It would have been obvious to one of ordinary skill to combine the teachings of Cohen and Kabir. Both references were directed toward performing operations of partial widths of data stored in registers. Kabir taught further operations to be performed on the partial width data such as multiplication on floating point data (e.g., see fig. 4) for performing image processing in a digital system (e.g., see col. 1, lines 6-11) consequently one of ordinary skill would have been motivated to incorporate the floating point operations to the Cohen system at least to provide the capability use in addition applications such as graphics applications.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Coleman whose telephone number is (571) 272-4163. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EC



ERIC COLEMAN
PRIMARY EXAMINER